

On page 14, immediately following the heading "CLAIMS," please insert Having thus

B1 disclosed our invention, what we claim as new and to be secured by Letters Patent of the United States of America is:--

Please cancel Claims 1, 2 and ~~38~~³⁶-40 without prejudice.

Please add the following claims:

B2 Claim 51. An apparatus for monitoring an animal which comprises: a stress measuring device for determining the stress of the animal, the stress measuring device comprising at least one of the following instruments selected from a group consisting of an infrared meter for measuring an infrared image of the animal, a hygrometer for measuring the humidity of the fur or the nose of the animal, an iris scanner for determining the eye characteristics of the animal, a smell or odor meter for determining the breath or body odor of the animal, a muscular tension measuring instrument for determining the muscular tension of the animal, an excrement analyzing instrument for determining the characteristics of the excrement of the animal, and a muscle vibration meter for determining the muscle vibrations of the animal; a central unit comprising stress measurement data and a correspondence table, said correspondence table containing for said animal stress related data, a comparing means for comparing said stress measurement data with the data in said correspondence table, and a program for providing on the basis of the comparison by the comparing means, an indication of the amount of stress of the animal, said program supplying a prognosis of stress behavior of said animal.

Claim 52. An apparatus in accordance with Claim 51, which comprises at least two of said instruments, said central unit containing an algorithm for attributing a weighing factor to a particular stress measurement data for said at least two of said instruments.

Claim 53. An apparatus for use in the process of milking a milk producing animal, which apparatus comprises a stress measuring device that determines the degree of relatively

momentary stress of said animal before and during the milking process, a computer operationally associated with said device to which data of the animal's degree of relatively momentary stress before or during milking of the animal is transmitted from said device and stored in said computer as a measurement of the animal's degree of relatively momentary stress experienced by the animal incidental to the milking process before and during milking.

Claim 54. An apparatus in accordance with Claim 53, which is also suitable for measuring and storing stress measurement data after the milking of said animal.

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Claim 55. An apparatus in accordance with Claim 53, which comprises means for determining milk related data which is transmitted to said computer and stored therein for each milking of said animal.

Claim 56. An apparatus in accordance with Claim 55, wherein said means for determining milk related data includes further means for determining the milk flow from each milk quarter of said animal during the milking of said animal.

Claim 57. An apparatus in accordance with Claim 53, which is provided with an animal identification system, a memory of said computer being adapted to contain for each animal milk by said milking process data relating to the relatively momentary stress being experienced by each animal before and during the milking process.

Claim 58. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises an infrared meter for measuring an infrared image of said animal.

Claim 59. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a video camera for determining the position of parts of said animal consisting of said animal's ears, head or tail or any combination thereof.

Claim 60. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a hygrometer for determining the humidity of the fur or the nose or both of said animal.

Claim 61. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a movement behavior meter consisting of a video camera, a step counter, a weighing floor, or a cow follower or any combination thereof for determining the movement behavior of said animal.

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Claim 62. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises an eye meter consisting of a video camera or a scanner or both for determining the eye characteristics of said animal.

Claim 63. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a smell or odor meter for determining the breath or body odor of said animal.

Claim 64. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a muscular tension measuring instrument consisting of a muscle contraction meter or a video camera, or both, for determining the muscular tension of said animal.

Claim 65. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a video camera for determining whether said animal has its tongue outside its mouth.

Claim 66. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a blood analyzer for determining the concentration of blood components of said animal's blood.

Claim 67. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises an excrement analyzing instrument for determining the characteristics of said animal's excrement.

Claim 68. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a heartbeat meter for determining the heartbeat of the animal.

Claim 69. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a thermometer for determining the temperature of said animal.

Claim 70. A device in accordance with Claim 53, wherein said stress measuring device comprises a muscle vibration meter for determining the muscle vibrations of said animal.

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Claim 71. An apparatus in accordance with Claim 53 which is disposed in a compartment consisting of a milking compartment, a foremilking compartment, a cleaning compartment, or a post-treatment compartment or any combination thereof.

Claim 72. An apparatus in accordance with Claim 53, which is disposed in a milking compartment having a milking robot.

Claim 73. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a buffer memory for containing a number of measurement data.

Claim 74. An apparatus in accordance with Claim 53, wherein said stress measuring device comprises a transmitter for transmitting data from said device to said computer.

Claim 75. An apparatus in accordance with Claim 74, wherein said stress measuring device is provided with a receiver for receiving a transmission order.

Claim 76. An apparatus in accordance with Claim 53, wherein said computer comprises a central unit and has a memory for processing said measurement.

Claim 77. An apparatus in accordance with Claim 76, wherein said central unit is provided with a reading means for reading said stress measuring device.

Claim 78. An apparatus in accordance with Claim 76, wherein said central unit comprises a correspondence table, said correspondence table containing for each animal milked

in said milking process stress related data including limit values, historical data, and tolerance ranges.

Claim 79. An apparatus in accordance with Claim 78, wherein said central unit comprises a comparing device for comparing said measurement with the data in said correspondence table for comparing measurements obtained for said animal in the milking process.

Claim 80. An apparatus in accordance with Claim 79, wherein said computer is loaded with a program for providing, on the basis of the comparison of said comparing means, an indication about the amount of stress which has been experienced by said animal.

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Claim 81. An apparatus in accordance with Claim 80, wherein said computer program provides a prognosis of said animal's stress behavior.

Claim 82. An apparatus in accordance with Claim 81, comprising a plurality of stress measuring instruments, said computer containing an algorithm for attributing a weighing factor to a particular said measurement.

Claim 83. An apparatus in accordance with Claim 76, wherein said central unit is provided with a signal issuing device for issuing a signal after receipt and processing of said measurement.

Claim 84. An apparatus in accordance with Claim 83, wherein said signal is displayed on a screen which provides information about the stress behavior of said animal.

Claim 85. An apparatus in accordance with Claim 53, which further comprises an animal identification system.

Claim 86. An apparatus in accordance with Claim 85, wherein said animal identification system can be detected by a GPS-system.

Claim 87. An apparatus in accordance with Claim 53, wherein said stress measuring device provides a signal to an alarm means on the basis of the stress measured of said animal.

Claim 88. An apparatus in accordance with Claim 51, which is further provided with an animal identification system.

Claim 89. An apparatus in accordance with Claim 88, wherein said animal identification system is capable of being detected by a GPS-system.

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Claim 90. A milking process which comprises the milking of a milk producing animal which comprises the step of measuring the degree of relatively momentary stress of said animal before or during the milking of said animal which affects the yield or quality of milk produced by said animal during said milking and transmitting said stress measurement to a computer memory as data relevant to the yield and quality of milk which it is expected said animal will produce when it experiences said relatively momentary stress during or before it is milked.

Claim 91. A process in accordance with Claim 90, wherein the step of measuring the degree of relatively momentary stress of said animal is also carried out after said milking.

Claim 92. A method in accordance with Claim 90, which comprises the step of storing said degree of relatively momentary stress in said computer memory.

Claim 93. A process in accordance with Claim 90, which comprises the step of determining milk related data during said milking and said computer memory is suitable for storing said stress measurement data together with said milk related data. *such as flow*

Claim 94. A process in accordance with Claim 90, comprising the step of automatically effecting a procedure on said animal which has an effect on said degree of relatively momentarily stress of said animal to increase the yield and quality of milk produced by said animal.